932,1251

Appl. No. 10/694,342

Amdt. dated December 17, 2004

Response to Office Action of October 5, 2004

In the Specification

Please make the following amendment on page 1, line 4, of the first paragraph:

This invention refers to a tray for the transportation of products, which is extremely

resistant strong and can be transported with a substantially flat configuration.

Please make the following amendments to the BACKGROUND OF THE INVENTION

section beginning on page 1:

Cardboard trays for the transportation of products, such as fruit, are formed by a sheet

equipped with a series of folding lines, which define the bottom of the tray, the headers and the sides.

An important characteristic of these trays is that they must be extremely resistant strong

and indestructible so as to tolerate the transportation and bear a great capacity. Therefore, some of the

trays that are currently known comprise a top flap over each header, which extends horizontally towards

the inner area of the tray.

One drawback which present some of the trays that are currently known is their inability

to be folded once they are assembled, which means they have to be assembled immediately before their

use or transported already assembled but empty. The latter option is a serious inconvenience as trays

take up a lot of space.

So as to solve these inconveniences, different trays for the transportation of products

have been designed, such as, for example, the one described in the application for Spanish utility model

932,1251

Appl. No. 10/694,342

Amdt. dated December 17, 2004

Response to Office Action of October 5, 2004

U9403323. This document describes a tray equipped with said the top flaps on the headers and which

comprises inclined folding lines on its sides that allow the folding of the tray, adopting a substantially

flat configuration. Thanks to this substantially flat configuration, the tray can be transported empty

taking up very little space.

However, the tray described in this utility model entails the inconvenience that its resistance

strength is not appropriate. Thanks to the presence of the top flaps, the headers are very resistant

strong, but the presence of inclined folding lines on the sides makes it less resistant strong.

Please make the following amendments to the **DESCRIPTION OF THE INVENTION** section

beginning on page 2:

The tray for the transportation of products of the invention manages to solve the

aforementioned inconveniences, and presents other advantages that will be described hereunder.

The tray for the transportation of products of the invention is formed by a sheet provided

with a series of folding lines that define:

- the bottom of the tray;

- a couple of headers;

- a couple of sides;

- a polygonal column on each of the corners; and

- two top flaps, each of which extends horizontally from one of the headers to the

inner area of the tray;

932.1251

Appl. No. 10/694,342

Amdt. dated December 17, 2004

Response to Office Action of October 5, 2004

the tray also comprises inclined folding lines that allow the folding of the headers and the sides on the bottom of the tray;

and it is characterised in that said wherein the inclined folding lines are located on the headers and on said the top flaps.

Thanks to this characteristic, the tray of the invention is very resistant strong and, at the same time, can be transported in a substantially flat position, thus taking up very little space.

Advantageously, each header and top flap comprise two inclined folding lines, that extend from the bottom corners of the header substantially to the centre of the top part of the same.

In order for the tray to be even more resistant strong, each top flap comprises a couple of side flaps that are attached to the outer part of the sides, thus avoiding that the side becomes detached if subjected to excessive tensile force. Furthermore, it allows a reduced internal thickness between the columns and the sides, which facilitates the folding of the tray for its transportation.

Preferably, each top flap comprises a couple of additional folding lines that extend from the corners in contact with the headers towards the inner area of the tray, in the assembly position.

In order to make the tray of this invention even more resistant strong, each column could present an orifice on the top flaps through which an a reinforcement element member could be inserted in said the columns.

If so desired, each orifice can comprise an articulated tongue, which is accommodated inside the column after inserting said the reinforcement element member. Thanks to this tongue, the inner side of the orifice which the tongue is articulated to, becomes much more resistant strong.

According to a preferred embodiment, said the columns are triangular and the side defined by the hypotenuse of said the triangle comprises a vertical folding line.

According to two alternative embodiments, said the reinforcement element member is a triangular plaque or prism formed by a laminar element.

In order for said the sides to also have the appropriate resistance strength, said the sides have a double thickness.

Please make the following amendments to the **BRIEF DESCRIPTION OF THE DRAWINGS** section beginning on page 3:

So as to enable a better understanding of the terms stated above, a series of drawings have been included to, schematically and illustratively, represent a practical case of the embodiment.

Figure 1 is a plan view of a fourth of the sheet that forms the tray of the invention when unfolded;

Figure 2 is a perspective view of one of the corners of the tray of the invention during assembly;

Figure 3 is a perspective view of one of the corners of the tray of the invention in its upright usage position;

Figure 4 is a perspective view of a corner of the tray of the invention that comprises an a reinforcement element member in the columns of the same tray, in accordance with a first

932.1251

Appl. No. 10/694,342

Amdt. dated December 17, 2004

Response to Office Action of October 5, 2004

embodiment;

Figure 5 is a perspective view of a corner of the tray of the invention, in accordance with

a second embodiment, including an orifice with an articulated tongue;

Figure 6 is a perspective view of a corner of the tray of the invention, that comprises

an a reinforcement element member in the columns of the same tray, in accordance with said the

second embodiment; and

Figure 7 is a plan view of one of the halves of the tray of the invention in its

substantially flat transportation position.

Please make the following amendments to the **DESCRIPTION OF A PREFERRED** 

**EMBODIMENT** section beginning on page 4:

As can be appreciated in figure 1, the tray of the invention is formed by a sheet,

preferably made of cardboard, that comprises a plurality of folding lines which, once assembled, define

a bottom 1, a couple of sides headers 2, a couple of headers sides 3, a triangular column 4 on each

corner of the tray, and a top flap 6 on each header, each said top flap 6 extends horizontally towards

the inner area of the tray.

Furthermore, according to the embodiment presented, the represented tray also

comprises a side flap 8 on each side of the top flaps 6 and orifices 10 located on the top flaps 6 in

correspondence with columns 4. In accordance with the represented embodiment, the width of the side

Appl. No. 10/694,342

Amdt. dated December 17, 2004

Response to Office Action of October 5, 2004

flaps 8 is substantially wider than the width of the top flaps 6. These orifices 10, as will be described

below in depth, are used to insert elements for reinforcement 11, 12 in columns 4.

The side of the columns defined by the hypotenuse of said the triangle comprises a

vertical folding line 5 that allows the folding of the tray once assembled, together with the folding lines

described hereunder. If the columns 4 are not triangular, there must be a vertical folding line that

enables the folding of the tray.

Headers 2 also comprise inclined folding lines 7, 9 to enable the folding of the tray once

assembled. The tray, once assembled and folded, has a substantially flat configuration (represented in

figure 6) that is ideal for its transportation when empty, taking up very little room.

From the unfolded sheet shown in figure 1, in the first place the columns 4 are erected,

sticking one of their sides to the headers 2. Subsequently, the sides 3, which have a double thickness,

are stuck to said the columns 4, and the top flaps 6 are folded towards the headers, adopting their

definitive horizontal position. Finally, side flaps 8 are stuck on the outer area of the sides 3.

In the case of the represented embodiment, column 4 is formed on the headers 2.

However, if so desired, the columns 4 could evidently also be formed on the sides 3.

Once assembled, the tray presents the configuration represented in figure 3. In order to

increase the resistance strength of the tray of the invention, an a reinforcement element member 11 can

be inserted in each column 4 through an orifice 10. Figure 4 includes the representation of an the

reinforcement element member 11 with a plaque shape 11 and, in this case, the orifice 10 is shaped like

a slot.

Appl. No. 10/694,342

Amdt. dated December 17, 2004

Response to Office Action of October 5, 2004

Alternatively, as represented in figure 5, the a reinforcement element member 12 could be shaped like a triangular prism, which is inserted in column 4 through a triangular orifice 10. In this case, said the triangular prism is formed by a laminar element, that can be transported unfolded taking

up very little room.

It is important to state that it is not essential to insert the elements for reinforcement

members 11, 12 in columns 4, given that the tray of the invention is already extremely resistant strong

even without said the elements for reinforcement members 11, 12. Evidently, if the tray is to be used

without said the elements for reinforcement members 11, 12, orifices 10 are not needed in

correspondence with the columns.

As can be seen on figure 5, the orifice 10 can comprise an articulated tongue 13 that is

accommodated inside the column when the reinforcement element member 12 is inserted. Although

this is not essential, the presence of the tongue 13 is designed for use with triangular orifices 10.

As aforementioned, the tray of the invention can take on an assembled and folded

configuration, as can be appreciated in figure 6. To achieve this, each header 2 and its corresponding

top flap 6 comprise two inclined folding lines 7 that extend from each bottom corner of the header 2

substantially to the top centre of the top flap 6, as can be appreciated in the figures. Furthermore, each

top flap 6 also comprises a couple of additional inclined folding lines 9 that extend from the corners

in contact with the headers 2 to the inner area of the tray, in the assembly position.

The presence of these folding lines 7, 9 and of the vertical folding lines 5 of the columns

4 allow headers 2 and sides 3 to be folded on the bottom 1, with which the tray acquires a substantially

flat configuration.

932,1251

Appl. No. 10/694,342

Amdt. dated December 17, 2004

Response to Office Action of October 5, 2004

Thus, the tray of the invention can be transported taking up very little room, as it can

be placed in its usage position by simply unfolding the headers 2 and the sides 3 and, if required,

inserting the elements for reinforcement members 11, 12 in the corresponding orifices 10.

Although this refers to a specific embodiment of the invention, obviously a person

skilled in the art will know that the tray for the transportation of products described herein may undergo

many variations and modifications and that all the details mentioned may be replaced by others that are

technically equivalent, without departing from the scope of protection defined by the claims attached.

Please make the following amendment to the **ABSTRACT** on page 10 of the specification:

The A tray comprises comprising a bottom (1) of the tray; a couple of headers (2); a couple

of sides (3); a polygonal column (4) on each of its corners; and two top flaps (6), each of which

extends horizontally from one of the headers (2) to the inner area of the tray; the is provided. The

tray also comprises inclined folding lines (7) that allow the folding of the headers (2) and the sides

(3) on the bottom (1) of the tray; and it is characterised in that said wherein the inclined folding lines

(7) are located on the headers (2) and on said the top flaps (6). The tray is very resistant strong and,

at the same time, can be transported substantially flat, occupying a reduced space.